UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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October 5, 2010

Mr. George Sedberry
Superintendent
Gray's Reef National Marine Sanctuary
Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration
10 Ocean Science Circle
Savannah, GA 31411

SUBJ: EPA NEPA Comments on the DEIS for the Gray's Reef National Marine Sanctuary "Sanctuary Research Area Designation"; 16 Miles Offshore Sapelo Island, GA; CEQ #20100363; ERP #NOA-E39081-GA

Dear Mr. Sedberry:

Consistent with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the referenced National Oceanic and Atmospheric Administration (NOAA) Draft Environmental Impact Statement (DEIS) on a proposed research site within the Gray's Reef National Marine Sanctuary (GRNMS). NOAA's National Ocean Service (NOS) and its Advisory Council (and the Council's Research Area Working Group: RAWG) participated in the site selection process for this DEIS project. EPA has previously provided comments on another Gray's Reef Final EIS (FEIS) and DEIS in letters dated August 18, 2006, and February 6, 2004, respectively.

NOAA Proposal

The purpose of the EIS is to designate a portion of the existing 22-square-mile sanctuary for research on marine live bottom habitats and other studies. We agree with such a designation to study the effects of natural (e.g., hurricanes) and other (e.g., climate change/ocean acidification) events on reefs and other live bottoms in a controlled area essentially free from anthropogenic impacts such as fishing, anchoring, etc. The results of this closure area could then be compared to nearby areas still impacted by humans. As a research or restoration-like proposal, we agree with the DEIS (pg. 4) that significant impacts due to the project are not expected.

DEIS Alternatives

In addition to the No Action Alternative, the site alternatives presented in the DEIS are: 1) Southern Option Boundary, 2) Optimal Scientific Option Boundary, 3) Minimal User Displacement Option Boundary, and 4) Compromise Option Boundary. NOAA has identified Alternative 1 as their agency preferred alternative for the DEIS. Two main parameters were considered for these alternatives – the quality of habitat desired for research and the level of fishing, diving and boating to be allowed within the designated site.[1] We make the following observations on these parameters:

* Habitat – Several criteria were used to select a research site within the GRNMS: the amount of ledge and other bottom habitat needed for study; the need for research monitoring and data buoys; use of site boundary marker buoys; and the percentage of recreational users that would be displaced at the site. We offer the following:

+ *Habitat Quality*: If this designation is indeed intended as a research ground to study the effects on live bottom habitat, it would seem to us that the selected site should be inclusive of at least a sufficient – if not the most practicable maximum – amount of diverse habitat available within the sanctuary (we note that page 16 of the DEIS indicates the Advisory Council's recommendation that maximizing short, medium and tall ledges is a "high priority"). Such extensive and diverse habitat would allow for various study designs and iterations, and any adaptive management restarts that may be needed. The site most representative of the best habitat in terms of all types of ledges and other habitat appears to be Alternative 2 (Optimal Scientific Option), although the NOAA-preferred Alternative 1 (Southern Option) is characterized as 80% inclusive of ledge and other habitats in the DEIS (pg. 20). Beyond habitat quality, the size of the site should be large enough to allow for adequate buffering from human impacts occurring in adjacent areas outside the research site.

+ *Monitoring*: The DEIS (pg. 22) states that a long-term monitoring area and data buoy "...would be beneficial to research and management because of the available long-term data sets." However, RAWG determined that the site and buoy are not "essential" and we note that preferred Alternative 1 does not include such monitoring. While EPA will defer to NOAA and its advisory groups is this regard, we would consider some accepted form of monitoring essential to field research. Perhaps more importantly, if a monitoring site and data buoy will not be used, how will data be collected and will another form of monitoring be provided? The FEIS should further discuss the rationale for not including such monitoring in its current preferred alternative and what alternates might be used.

+ *Marker Buoys*: Considered alternate sites would have either no, two or three side boundaries that are common with sanctuary boundaries (the NOAA-preferred Alternative 1 site would have 3 common sides). Such common borders should simplify enforcement and public recognition of the research area in the field. Nevertheless, the

[1] EPA recommends that the FEIS provide a tabular summary comparison of all alternative sites in terms of habitat quality (%), presence of monitoring buoy, user displacement (%), size (mi^2), and other criteria.

use of marker buoys would further outline the boundaries of the research site. However, we recognize that such buoys could be fish attractants and thereby artificially affect the study results.

+ *User Displacement*: Although a designated sanctuary, GRNMS allows certain forms of recreation such as boating and diving. Because there are favorite public use areas within the Sanctuary, the location of the alternate sites can affect users (indeed, favorite fishing and diving recreational areas would likely overlap with prime habitat areas). NOAA has been sensitive to limiting user disruption during its site selection of Alternative 1. We do not disagree; however, we find that public use and research intended to limit public use are not compatible and that continued public use there would confound research results. As such, we recommend that selection of the best study habitat should be emphasized for candidate research sites and that user displacement be somewhat secondary, so that the study will not be compromised by user effects. Minimum user conflicts would occur with Alternatives 3 (Minimal Option) and 4 (Compromise Option). Areas outside the research site would still be available for public use.

The user displacement criterion considered fishing, diving and boating options.

* Fishing – The fishing level options were no fishing, year-round trolling for pelagic species, and tournament only trolling for pelagic species. No fishing was preferred by NOAA and we strongly concur.

* Diving – The two diving level options were no diving and diving by permit only. NOAA preferred the no diving option and we strongly concur.

* Boating – The level of vessel operation options were that transit was allowed across the research area without stopping (uninterrupted transit) or with stopping allowed (interrupted transit). Without stopping was preferred by NOAA from an enforcement standpoint. No entry by boaters was also considered but eliminated from a user hardship and fuel savings standpoint.

While we agree that disallowing boat traffic over the research site could be a hardship and cost energy, the water quality implications of such vessel transit should also be considered in the FEIS in the context of the goals of the proposed research. That is, would incidental oil and gas spills, noise and other potential impacts from boat traffic confound data, especially on any water quality or non-bottom impinging studies (e.g., ocean acidification)? Would the location, configuration and size of the research site be a significant obstacle to boat traffic or could it be easily circumvented? Ideally, we suggest that most marine research sites would benefit from a no-public-access restriction, with legitimate emergencies being an exception to save transit time. Other portions of the sanctuary could remain open to boat traffic recreation.

EPA Recommendations

EPA supports the proposed designation of a research site within GRNMS to determine human and natural effects on live bottom habitats as well as other studies such as climate change effects on ocean acidification. We recommend the following for the research site within GRNMS:

* *Habitat Quality*: Site selection should emphasize incorporation of sufficient and quality study habitat (all types of ledges and other live bottoms) to allow for full research needs;
* *User Displacement*: User displacement should be considered but in this case, we believe is secondary to habitat inclusion since other portions of the Sanctuary will still remain open to public access;
* *Closures*: In order to eliminate or minimize confounding parameters, the site should prohibit all fishing and diving and consider prohibiting boat traffic (except for emergencies and study access) to minimize potential water quality impacts from boat traffic if it would confound study data (attempts should also be made to locate and configure the site so that boaters can reasonably circumvent it);
* *Size & Configuration*: The site boundaries should conform with some of the Sanctuary boundaries by having some common sides with the Sanctuary (to simplify enforcement and minimize the need for boundary marker buoys, which may attract fish and bias the studies);
* *Data Buoy*: Site should desirably incorporate the Sanctuary's existing data buoy; if not, discussion of an alternate form of study monitoring and data collection should be provided in the FEIS.

NOAA's preference for Alternative 1 (Southern Option) in the DEIS incorporates several of the above recommendations. These include: three common sides with the Sanctuary's borders, good habitat (80%) but not the scientific optimum (Alt. 2); and closure to all fishing and diving. However, the user displacement (percent of boat traffic) is unclear for Alternative 1 (as well as other alternate sites: see above footnote), as is the site's size and configuration information (i.e., is the site size optimal for research and will its configuration allow boats to easily circumvent it?). We also note that the desirable data buoy is outside the Southern Option. Moreover, it is unclear if this or any site will be closed to public boat traffic as recommended by EPA.

Because we believe that habitat should be the primary consideration in the selection of a research site within GRNMS, EPA favors Alternative 2 (Optimal Scientific Option), which also incorporates the Sanctuary's data buoy. However, we acknowledge that this site has no common boundaries with the Sanctuary and has the reportedly highest user conflicts (67%). In response, we note that it may be expected that quality habitat would be a popular public marine attraction so that there would be user conflicts; designation of the site – and therefore user conflicts – are temporary [2]; and the remainder of the Sanctuary can remain open to public access during the research site designation.

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[2] The term of the research (and therefore its site designation) should be provided in the FEIS.

Also, the western border of the site could conceivably be moved westward to match the Sanctuary's western side to facilitate enforcement of site closures. Moreover, the "lat-long" location of the research site will need to be marked on all area marine charts and especially on maps provided for Sanctuary visitors, to facilitate its location and identification for the public. Finally, because of its smaller size and that it does not extend across the entire Sanctuary (east to west) like the Southern Option, we assume that it could be more easily avoided to allow a no-boat-access closure, as appropriate.

On a more general note, EPA would support a more protective NOAA definition of a sanctuary by including limited-access areas within most designated sanctuaries where human activities are limited (in-water recreation) or disallowed (recreational fishing and other extractive uses). These areas could be used for research or simply as low-impact areas within a sanctuary that are more protective of marine species and habitat in a more traditional sanctuary sense (marine preserve or refugia). Unless research needs prohibit, uninterrupted vessel transit across sanctuary waters might be permissible – especially in emergencies and to save energy – but at slower speeds in regions where marine mammals are present.

EPA DEIS Rating

Although we prefer and recommend Alternative 2 (Optimal Scientific Option) in order to minimize confounding factors and to maximize scientific research results, we rate this DEIS as "LO" (Lack of Objections) from an overall perspective.

EPA appreciates the opportunity to review the FEIS. Should you have questions regarding our comments, feel free to contact Chris Hoberg (404/562-9619 or hoberg.chris@epa.gov) of my staff.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

cc: Dr. Paul N. Doremus – NOAA NEPA Coordinator; Silver Spring, MD